

CLAIMS

5 [1] A polyurethane elastic fiber containing inorganic compound particles that have an average particle size of 0.5 to 5 μm , and that show a refractive index of 1.4 to 1.6, and having at least one protruded portion that has a maximum width of 0.5 to 5 μm in the fiber surface, per 120- μm length in the fiber axis direction.

10 [2] The polyurethane elastic fiber according to claim 1, wherein the polyurethane elastic fiber contains from 0.05 to 10% by weight of inorganic compound particles.

15 [3] The polyurethane elastic fiber according to claim 1 or 2, wherein the inorganic compound particles are porous silica having a specific surface area of 100 to 800 m^2/g .

20 [4] The polyurethane elastic fiber according to any one of claims 1 to 3, wherein the coefficient of dynamic friction thereof against a knitting needle is from 0.2 to 0.6.

[5] The polyurethane elastic fiber according to any one of claims 1 to 4, wherein the coefficient of static friction thereof against the polyurethane elastic fiber is from 0.3 to 0.6.

25 [6] The polyurethane elastic fiber according to any one of claims 1 to 5, wherein the change with time (after allowing the polyurethane elastic fiber to stand for 16 hours at 70°C) in the coefficient of static friction thereof against a nylon yarn is 0.1 or less.

30 [7] A process for producing a polyurethane elastic fiber, which comprises finely dispersing inorganic compound particles having an average particle size of 0.5 to 5 μm and showing a refractive index of 1.4 to 1.6 in an amide-type polar solvent, and dry spinning a
35 polyurethane spinning dope containing from 0.05 to 10% by weight, based on the polyurethane, of the inorganic

compound particles.